Daily Diary Report by Bid Item

Contract No.: **04-0120F4**
Diary #: **504** **Const Calendar Day:** 889 **Date:** **14-Feb-2012** **Tuesday**
Inspector Name: **Bruce, Matt** **Title:** **Transportation Engineer**
Inspection Type: Intermittent
Shift Hours: 05:00 am 03:30 pm **Break:** 00:30 **Over Time:** 02:00
Federal ID:
Location:
Reviewer: **Schmitt, Alex** **Approved Date:** **Status:** Submit

04-0120F4
04-SF-80-13.2/13.9
Self-Anchored
Suspension Bridge

Weather

Temperature **7 AM** 40 - 50 **12 PM** 50 - 60 **4PM** 50 - 60
Precipitation 0.00" **Condition** Partly Cloudy

Working Day ☐ If no, explain:

Diary: Dispute ☐

Work description.

- John Lyons, Phil Latasa, Alex Schmitt, Yeoung Lee and myself checked the out to out distance for the cable strands today as Phil's and my measurements are tabulated below. Phil, John and I were responsible for the mainspans and the west-loop. Similarly Alex and Yeoung were responsible for checking the sidespans. Phil and John assisted me with the measurements and tabulating the data. We used the Maletic gauge (Yellow #1) to take the out to out measurements of the cable strands.

The information tabulated below was conveyed to Alex who would inform ABF engineer Zach Lauria which cable strands were either adjusted properly (accepted) or if the cable strand required more adjusting (rejected). See Alex Schmitt's diary on the discussions with ABF engineer Zach Lauria and the decision for acceptance or rejection.

Ambient temperatures were taken with the red temperature gauge. Wind speeds were obtained from weather.com at the time of the measurements. The steel temperature measurements were taken with the digital thermometer placed on the outer cable strand wires.

The official sunrise time per weather.com for San Francisco today was at 7:02am. The following measurements were taken of the relative sag from cable strand number 1 at the given times below:

// North Mainspan //
Time = 5:08am
Ambient Temperature = 45F
Condition = Fair
Wind = NNW @ 12mph
ABF Surveyor(s) = Terry Denis and Mike Bonidici
Caltrans Engineer(s) = Matt Bruce, Phil Latasa, and John Lyons

Cable Strand	Steel Temperature (F)	O-O (#1Y) CT (mm)	Theor (mm)	CT Delta (mm)
1	46	Baseline or Zero	75	0
28	45	495, 492 - Ave = 494	500	- 6
29	45	91, 89 - Ave = 90	111	- 21
30	46	150, 150 - Ave = 150	168	- 18
31	45	235, 237 - Ave = 236	225	+ 11

32	45	271, 271 - Ave = 271	281	-	10
33	45	340	338	+	2
34	45	382	395	-	13
35	45	568, 565 - Ave = 567	452	+	115
36	45	520, 524 - Ave = 522	509	+	13
37	46	580, 579 - Ave = 580	566	+	14

Comments: All cable strands were considered to be free-hanging at the time of measurement on the north mainspan. I took all of the measurements while Phil assisted me with setting up the targets, being level, normal to cable, etc. John recorded the data while the measurements were being taken. The measurements were completed at 5:35am which was just prior to ABF surveyors needing to take measurements. The total time to take all of these measurements was 27 minutes.

// South Mainspan //
Time = 5:40am
Ambient Temperature = 45F
Condition = Fair
Wind = NNW @ 12mph
ABF Surveyor(s) = James Allen and Ken (new rodman, last name is unknown at this time)
Caltrans Engineer(s) = Matt Bruce, Phil Latasa and John Lyons

Cable Strand	Steel Temperature (F)	O-O (#1Y) CT (mm)	Theor (mm)	CT Delta (mm)	
1	45	Baseline or Zero	76		0
32	44	279, 280 - Ave = 280	282	-	2
33	45	337, 338 - Ave = 338	341	-	3
34	45	392, 393 - Ave = 393	400	-	7
35	44	542, 542 - Ave = 542	458	+	84
36	45	555, 554 - Ave = 555	517	+	38
37	45	602, 606 - Ave = 604	576	+	28

Comments: All cable strands were considered to be free-hanging at the time of measurement on the north mainspan. Phil took all of the measurements while I assisted him with setting up the targets, being level, normal to cable, etc. John recorded the data while the measurements were being taken. The measurements were completed at 5:49am which was just prior to ABF surveyors needing to take measurements. The total time to take all of these measurements was 9 minutes.

// North West-Loop //
Time = 5:59am
Ambient Temperature = 46F
Condition = Fair
Wind = NNW @ 12mph
ABF Surveyor(s)/Engineer(s) = None at this time

Caltrans Engineer(s) = Matt Bruce, Phil Latasa, and John Lyons

Cable Strand	Steel Temperature (F)	O-O (#1Y) CT (mm)	Theor (mm)	CT Delta (mm)
1	47	Baseline or Zero	80	0
34	46	567 (-114) = 453	457	- 4
35	46	682 (-114) = 568	552	+ 16
36	46	771 (-114) = 657	646	+ 11
37	47	849 (-114) = 735	741	- 6
38	46	167 (-114) = 53	56	- 3
39	46	261 (-114) = 147	151	- 4

Comments: All cable strands were considered to be free-hanging at the time of measurement on the nouth west-loop. I took all of the measurements while Phil assisted me with setting up the targets, being level, normal to cable, etc. John recorded the data while the measurements were being taken. The ( ) denotes that a block was used with the block width or height dimension in millimeters.

// South West-Loop //
Time = 6:10am
Ambient Temperature = 46F
Condition = Fair
Wind = NNW @ 12mph
ABF Surveyor(s)/Engineer(s) = None at this time
Caltrans Engineer(s) = Matt Bruce, Phil Latasa, and John Lyons

Cable Strand	Steel Temperature (F)	O-O (#1Y) CT (mm)	Theor (mm)	CT Delta (mm)
1	46	Baseline or Zero	80	0
34	46	564 (-114) = 450	457	- 7
35	46	683 (-114) = 569	552	+ 17
36	46	775 (-114) = 661	646	+ 15
37	46	864 (-114) = 750	741	+ 9
38	46	166 (-114) = 52	56	- 4
39	46	257 (-114) = 143	151	- 8

Comments: All cable strands were considered to be free-hanging at the time of measurement on the south west-loop. Phil took all of the measurements while I assisted him with setting up the targets, being level, normal to cable, etc. John recorded the data while the measurements were being taken The ( ) denotes that a block was used with the block width or height dimension in millimeters.

- Phil, John, and myself completed the required measurements at 6:22am. We all met with Alex Schmitt and proceeded to go to the top of the tower where numbers would be reviewed with Zach. Caltrans adjustment crew had all required numbers in hand well before the 7:00am deadline. After some dispute over the measurements for cable strands 35 and 36 at the north sidespan, myself and Phil went to recheck the measurements.

// North Sidespan //
Time = 6:56am
Ambient Temperature = 45F

Condition = Fair
Wind = N @ 3mph
ABF Surveyor(s)/Engineer(s) = Terry Denis and Mike Bonidici
Caltrans Engineer(s) = Matt Bruce and Phil Latasa

Cable Strand	Steel Temperature (F)	O-O (#1Y) CT (mm)	Theor (mm)	CT Delta (mm)
1	44	Baseline or Zero	78	0
35	46	528 (-61) = 467	478	-11
36	46	591 (-61) = 530	542	-12

Comments: All cable strands were considered to be free-hanging at the time of measurement on the north sidespan. I took all of the measurements while Phil assisted me with setting up the targets, being level, normal to cable, etc. ABF surveyor Terry Denis and I verbally exchanged results for these two cable strands at this location which were within a few millimeters of each other.

- Attended a meeting for the closure of the SFOBB during Presidents day weekend related to the traffic change for the Oakland Touchdown project at 9:00am.

- Talked Alta Vista consultant Dave Garrett and and Nina Choy (Caltrans METS representative) about my conversation with Bill Casey and Dave's boss Mazen Wahbeh (Alta Vista manager) that I would no longer be able to supervise and have no more work for Dave, Chris, and Erol regarding dimensional control work on the SAS. I reiterated with Dave and Nina that I am busy with working on the cable adjustment sag measurements and don't have extra time at the moment to dedicate with this work. It is understood that Mazen and/or Nina will be responsible for supervising these gentlemen while they are on the SAS project.

- Continued to develop a plan for surveying the suspender brackets on the OBG with Warren Collins and Roman Granados. Also began to research a plan for preliminary and final layouts for the cable band placement. We discussed techniques and the schedule in which these tasks had to be done.

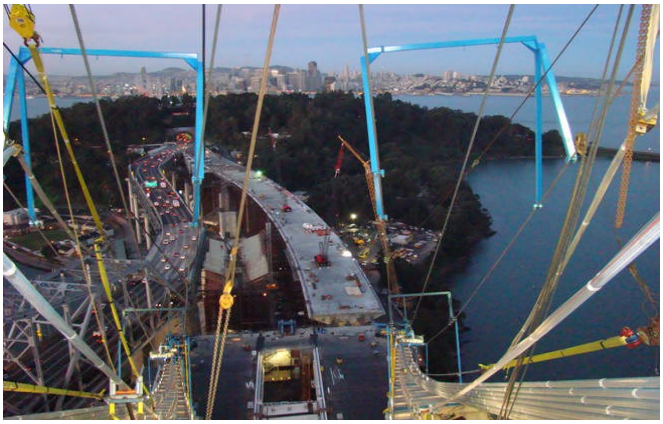
- Met with Brian Boal, Alex Schmitt, Michelle Chui, and John Lyons regarding the cable strand sag adjustment tolerances, measurements, and documentation.

- Reviewed RFI# 2727R00 "Main Cable Strand: Adjustment Tolerance" for Brain and Warren. Basically I confirmed that the numbers that we are using in the field are from the ABF adjustment chart dated January 27, 2012 especially at the west loop. At this location the +10mm adjustment to the original ABF cable strand adjustment chart prior to January 27, 2012 wasn't included.

- Worked on compiling my measurements and gave the daily cable strand sag adjustment sheets to John to check.

Attachment

Bent tubing on the North Sidespan catwalk close to the adjusting and floating hardware.



Conditions at 7:30am looking west from the tower saddle west face.